

REMARKS

During a telephonic interview between the undersigned attorney and the examiner on 12/19/05, the various rejections of the claims were discussed with respect to the present invention and the cited prior art references. A summary of the telephonic interview is presented below. At the conclusion of the telephonic interview, it was agreed that:

(1) The examiner would withdraw the rejection of the claims under 35 U.S.C. § 112, first paragraph, in light of the remarks presented below; and

(2) Rakib (US 6,857,132) does not teach or suggest the combination of elements as described in amended claim 1 of the present application.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 112

On page 2 of the office action the examiner rejection claims 1-57 under 35 USC Section 112 as failing to comply with the written description requirement. This rejection is respectfully traversed. The examiner states that the term "MAP message" is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art, at the time of the application was filed. Applicant respectfully disagrees for one or more of the reasons presented below.

Initially, it is submitted that the term "MAP message" as applied to cable networks (such as those implementing the well known DOCSIS protocol, for example) was, at the time the application was filed, a well-known term of art for describing a type of message which includes a bandwidth allocation Map that the Head End (e.g., CMTS) uses to allocate transmission opportunities to various cable modems.

Details regarding a specific embodiment of a bandwidth allocation Map message are described, for example, in the Data Over Cable System Interface Specification (DOCSIS) standard that was publicly presented by Cable Television Laboratories, Inc. (Louisville, Colorado), in a document entitled, DOCSIS 1.1 RF Interface Specification (document control number SP-RF1v1.1-I06-001215, December 15, 2000). That document was incorporated by reference in the present application on page 4 of the specification.

According to the DOCSIS protocol, the Media Access Control (MAC) protocol uses MAC management messages, referred to as "bandwidth allocation MAP messages", or simply "MAP messages," to describe the usage of the uplink channel(s). A given MAP message indicates the upstream bandwidth allocation over the given MAP time, termed the MAP length. The MAP assigns some uplink timeslots (referred to as "minislots") to particular nodes (e.g.,

cable modems or CMs) to transmit data, while other slots are available as contention slots to request bandwidth. The upstream channel(s) on a DOCSIS implemented access network (e.g., cable network) is shared by a number of nodes (e.g., CMs) and transports signals from the nodes (e.g., CMs) to the Head End. The available bandwidth is divided into allocation units or timeslots, referred to in DOCSIS as minislots or slots. The DOCSIS protocol specifies a reservation-based, centralized approach for distributing these minislots among the nodes (e.g., CMs). Periodically, the Head End (e.g., CMTS) sends a bandwidth allocation map (MAP) message over a given downstream channel. A MAP message may contain a number of data grants. Such a grant indicates when a particular node (e.g., CM) is allowed to transmit data on the uplink channel. The MAP may also identify minislots which are reserved for other purposes such as, for example, the contention channel.

More detailed descriptions of the DOCSIS bandwidth allocation Map messages are provided in the DOCSIS 1.1 RF Interface Specification (document control number SP-RFiv1.1-106-001215, December 15, 2000). Exemplary pages 84-86 and 133-139 of that document support the assertion that the meaning of the term "MAP message" as defined in the present claimed invention would readily be understood by one having ordinary skill in the relevant art at the time of the invention. Moreover, although the DOCSIS protocol describes the term "MAP message" with respect to cable networks, it is noted that a cable network is an example of a specific embodiment of an access network as defined in the present claimed invention. Accordingly, it is submitted that the term "MAP message" as applied to other types of access networks as defined in the present claimed invention would also readily be understood by one having ordinary skill in the relevant art at the time of the invention

Further, it is noted that page 19 of the specification states:

According to the DOCSIS specification, MAP messages are generated at the CMTS for each respective upstream channel in order to inform the cable modems using each upstream channel of the various timeslot allocations for that channel.

From this description in the specification, and from the use of the term "MAP message" throughout the specification, it is submitted that the meaning and functionality associated with the term "MAP message" would readily be understood to one having ordinary skill in the art at the time of the invention.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Independent claims 1, 12, 19, 22, 33, 40, and 51 of the present application have been amended for clarification purposes in order to more accurately define the scope of the present claimed invention.

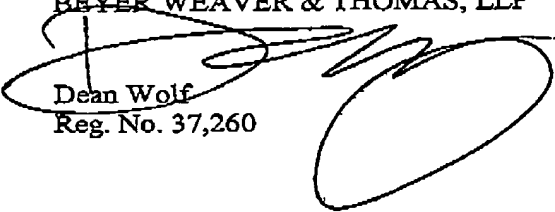
During the telephonic interview it was agreed that Rakib (US 6,857,132) does not teach or suggest the combination of elements as described in amended claim 1 of the present application. Accordingly it is believed that amended claim 1 is neither anticipated by nor obvious in view of Rakib or any of the other cited prior art references, and is therefore believed to be allowable.

Independent claims 12, 19, 22, 33, 40, and 51 define features similar to those defined in claim 1, and are therefore believed to be allowable for at least those reasons stated above in support of claim 1. Additionally, each of the presently pending dependent claims is also believed to be allowable since it depends upon a respective independent claim.

The additional limitations recited in the independent claims or the dependent claims are not further discussed as the above-discussed limitations are clearly sufficient to distinguish the claimed invention from Rakib. Further, because claims 1-57 are believed to be allowable in their present form, many of the examiner's rejections in the Office Action have not been addressed in this response. However, applicant respectfully reserves the right to respond to one or more of the examiner's rejections in subsequent amendments should conditions arise warranting such responses.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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